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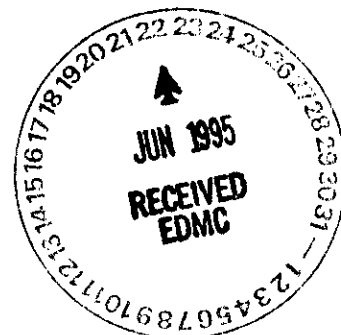
## Department of Energy

Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

JUN 09 1995

Mr. Steve M. Alexander  
Perimeter Areas Section Manager  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
1315 W. Fourth Avenue  
Kennewick, Washington 99336-6018

Mr. Douglas R. Sherwood  
Hanford Project Manager  
U.S. Environmental Protection Agency  
712 Swift Boulevard, Suite 5  
Richland, Washington 99352-0539



Dear Messrs. Alexander and Sherwood:

TRANSMITTAL OF THE DRAFT SUMMARY REPORT BHI-00345, "CHROMIUM CONCENTRATIONS IN 100-H OPERABLE UNIT PORE WATER WITHIN CHINOOK SALMON SPAWNING HABITAT OF THE HANFORD REACH, COLUMBIA RIVER," REVISION 0A

Enclosed please find the subject document for concurrent review by the U.S. Department of Energy, Richland Operations Office (RL), the State of Washington, Department of Ecology (Ecology), and the U.S. Environmental Protection Agency (EPA). This is a draft summary report of results from the 100-H reactor area salmon spawning habitat field investigation to assess the potential for embryonic salmon exposure to chromium. Pore water samples were collected between March 10, 1995, and April 9, 1995, from river substrate mostly in areas potentially used by chinook salmon for nesting. The samples were collected approximately 18 inches below the bed of the river from a total of 31 locations along 17 transect lines in the Columbia River adjacent to the 100-H Area. Six background samples were also obtained from upstream of the 100 areas at Vernita Bar.

Sampling results to date are insufficient to draw final conclusions regarding water quality conditions in salmon redds; however, the results indicate that widespread hexavalent chromium contamination at levels exceeding EPA and Ecology Ambient Water Quality Criteria (11  $\mu\text{g/l}$ ) in the pore water is not present. The analytical results from this survey provide a measure of the exposure to chromium-bearing water experienced by salmon eggs, alevin, and fry. Hexavalent chromium was detected above the 11  $\mu\text{g/l}$  criteria at 3 of the 31 sample sites investigated in this study; two of the sample sites were located in substrate of marginal quality for spawning salmon and the other was in substrate considered preferable to spawning salmon.

Messrs. Alexander and Sherwood

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If you want to discuss this matter further or require additional information, please contact Mr. R. F. Brich at 376-9031.

Sincerely,



Julie K. Erickson, Director  
River Sites Restoration Division

RSD:RFB

Enclosure

cc w/encl:

L. E. Gadbois, EPA  
D. P. Holland, Ecology  
W. W. Soper, Ecology  
J. W. Yokel, Ecology

cc w/o encl:

R. L. Biggerstaff, BHI  
G. R. Eidam, BHI  
R. C. Wilson, BHI